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WALKER MEMORIAL SPECIAL COMMITTEE

Report to the President on matters referred to the committee in connection with the development of the New Technology

I.

APPOINTMENT AND FUNCTIONS OF THE COMMITTEE

The present committee was appointed by President Maclaurin, March 23, 1912, at the instance of the Walker Memorial Committee of the Alumni Association—and indirectly of the Alumni Council—"to work out a more definite and concrete plan for the Walker Memorial," and "to submit plans for this building." Subsequently, and informally, the committee has been invited by the President to consider and report on certain other matters, mentioned below, affecting the physical and social welfare of students, in coöperation with an alumni committee on student housing.

PROCEDURE.

The committee has held more than twenty meetings, several of which have taken the form of conferences on special topics with members of the Faculty and with groups of undergraduates. It has collected and studied a large mass of data from other institutions through visits by Mr. J. H. Scarff, '11, as its representative, and by the courtesy of Mr. J. R. Freeman, '76, and his alumni agents. It has corresponded with alumni, with college graduates at the Institute, and in general has sought to study its whole group of problems both broadly and thoroughly, as a basis for the present report.

Members of the committee have visited the

student Unions at Harvard, Brown, Columbia and the University of Pennsylvania.

In the TECHNOLOGY REVIEW for January, 1913, the committee published, in coöperation with the alumni committee on student housing, a series of illustrated articles on the matters under consideration, as an informal preliminary report, which might elicit useful criticism. Since that time it has particularly invited criticism, or approval, of the plans from the Alumni Walker Memorial Committee, from the Alumni Council, and from a committee of undergraduates.

Those portions of the report which deal with physical education and athletics have been prepared with the coöperation of the Alumni Advisory Council on Athletics. The earlier gymnasium plans have been referred to several of the leading college gymnasium directors of the country, and the committee is particularly indebted to Dr. Meylan of Columbia University, Dr. Storey of New York City College, Dr. Raycroft of Princeton, and Dr. Anderson of Yale University. The committee has also secured the coöperation of representatives of the Faculty and of the Technology Club in connection with questions of the use of the Walker Memorial by instructing staff and alumni.

II

LOCATION AND AREA

(The present committee has had no direct concern with the matter of student housing or the dining hall. It has seemed clearer,

however, to present a combined plan which agrees in a measure with the third of the alternatives presented by the committee on student housing.)

In view of the extreme variety of considerations affecting the general question of location, we have not deemed it within our province to attempt a quite definite recommendation. On the other hand, it has seemed to us that location is so large a factor in connection with our particular work that we ought to deal with it so far as our limitations might permit. In doing this we have accepted the following guiding principles:

1. That we consider the matters with which we are concerned distinctly educational, and are of opinion that due provision can be made for them without interference with those buildings which are educational in the stricter sense.

2. That compactness of the strictly educational buildings, both now and in case of future expansion, is of paramount importance.

3. That for the sake of economy of space, buildings would probably have not less than four stories.

4. That the Walker Memorial, as a memorial building and as a center for the whole social life of our students, ought to have a conspicuous, attractive and convenient location. It should be worthy of as fine a site as can be selected for it.

5. That the Walker Memorial, the gymnasium, the student houses, and the dining hall, should be permanent buildings; that the athletic field should be planned for use for not less than twenty-five years, thereafter admitting of replacement if required by the Institute's general growth.

6. That the athletic field should be so located as to admit of inclosure, and not to interfere with direct passage between the different buildings. We shall be glad if it can, at the same time, be so placed as to contribute to the general architectural effect.

Therefore, with such information as we have regarding the general building problem, and in accordance with representations by the Advisory Council on Athletics, we recommend as already proposed by letters of February 20 and 28, to President Maclaurin:

That the Walker Memorial be placed near the corner of Massachusetts avenue and the Esplanade, facing the latter; that the dining hall be next the memorial, on the north or east; that the Walker Memorial and the dining hall be connected by an arcade; that the gymnasium occupy the corner of Massachusetts avenue and Vassar street, with the swimming pool adjoining it on the south; that the athletic

field extend eastward from the gymnasium along Vassar street; that the space along Massachusetts avenue, between the Walker Memorial and the dining hall at one end and the gymnasium and swimming pool at the other, be used for quadrangles of student houses; that the interior of these quadrangles, and other available open space, for example, the strip of land north of Vassar street, be used for tennis courts; that the ground areas be approximately as indicated on the accompanying plan, and in the descriptive statement below.

Our reasons for preferring the above arrangement to the first choice of the committee on student housing are briefly as follows:

While the location of the Walker Memorial near Massachusetts avenue is less central than that suggested by the committee on student housing, it is much more convenient for use by the considerable number of students who will live within walking distance across Massachusetts avenue or in the Back Bay. This location is also much more convenient of access for social functions in the evening.

It seems to us disadvantageous to locate the student quarters near a manufacturing rather than a residential district, and to have a marked inequality in the location of different student houses—as would naturally be the case if only a fraction of them faced the Esplanade.

While we do not favor a single large building we regard a high degree of compactness of the educational buildings as of very great importance. It would be difficult to preserve this if the student quarter were located along the eastern boundary, and if the Institute should sooner or later expand its educational plant beyond that boundary.

The committee appreciates that considerations lying outside its province may necessitate modification of these plans, and offers them merely as a possible solution which may serve as a basis for the ultimate one. Whenever a general building scheme is adopted, the committee would welcome the opportunity to revise its recommendations to any necessary extent.

III

WALKER MEMORIAL

INTRODUCTION

As this part of the report deals with the main and primary problem of the committee, a brief review may be appropriate.

The Institute's first gymnasium dates from 1874; the present student Union from 1908.

Almost forty years ago, President Runkle said in his annual report to the Corporation:

"Where the health of one student is injured simply by overstudy, the health of many is injured by want of exercise, or other preventable causes, while overstudy is usually the only cause assigned. It is true that each class hears an excellent course of lectures on physiology and hygiene, but it is to be feared that too few make a personal application of what is taught them, and thus fail to gain what this instruction is mainly intended to impart. I am deeply impressed with the conviction that a radical change in this department is necessary, and that the laboratory system is quite as important in this as in other departments of the school. To make the instruction of the greatest value to each student, it must be applied practically in each case; and while I am not now prepared to advocate a compulsory system of gymnastics, I am satisfied that incalculable good would come from a more personal application, with opportunities for systematic exercise under the direction, not of a mere gymnast, but of a physician who had made this application a matter of special study."

General Walker, who was President from 1881 to 1897, keenly interested as he was both in athletics and in student welfare, found other needs of the growing Institute still more urgent than these. On his death the alumni undertook to raise funds for a Walker Memorial Gymnasium, as the most fitting memorial to him. It was soon afterwards determined to combine with the gymnasium provision for social needs, and the subscription of \$100,000 was completed in 1901, though it was well understood that this amount would by no means suffice for the dual purpose. A definite tract of 10,000 square feet was assigned for the Walker Memorial by the Corporation, and plans for a building prepared, but no further steps were taken until quite recently, in consequence of uncertainty as to the future location of the Institute. In the meantime, however, after a beginning in the Garrison street building, generous friends of the Institute have made in the present Tech Union, temporary provision for some of the purposes to be served by the Walker Memorial.

NEW CONDITIONS

Now we have to consider a new and different problem, viz: the best means of making adequate provision for both the social and the physical needs of two thousand students—perhaps three thousand within twenty-five years—with a broader future outlook and an ampler site.

GYMNASIUM AND SOCIAL CENTER SEPARATE

A first consequence of these changed conditions is our conclusion that there should be two buildings, one a gymnasium, the other a social center. We are convinced that each can be better adapted to its purpose if kept distinct, and that there will be no accompanying sacrifice of economy or efficiency of management. It seems to us clear that the social center, rather than the gymnasium, should retain the title "Walker Memorial," but it is desirable in connection with the proposed use of the building by alumni and instructing staff, and in harmony with the terms of the Cilley bequest, that the Walker Memorial include a small gymnasium. So far as other donors may have been interested to contribute to the Walker Memorial for the sake of its gymnasium side, we feel justified in assuring them that their aims will be more fully accomplished under the plan we propose than they could be in a single building serving both purposes. The Institute will certainly build a good gymnasium as one of the main objects of both the former and the present alumni subscription.

PURPOSES OF WALKER MEMORIAL

The chief purposes of the Walker Memorial may be classified as follows:

Student social affairs—large and small dinners, dances, shows, receptions, concerts.

Student organizations—Institute Committee, Christian Association, Walker Club, Cosmopolitan Club, debating and political clubs, dramatic societies, etc.

Student Publications—*The Tech*, *Technique*.

Personal and Recreational—library and reading room, pictures and statuary, music, lectures on art, travel, literature, etc.

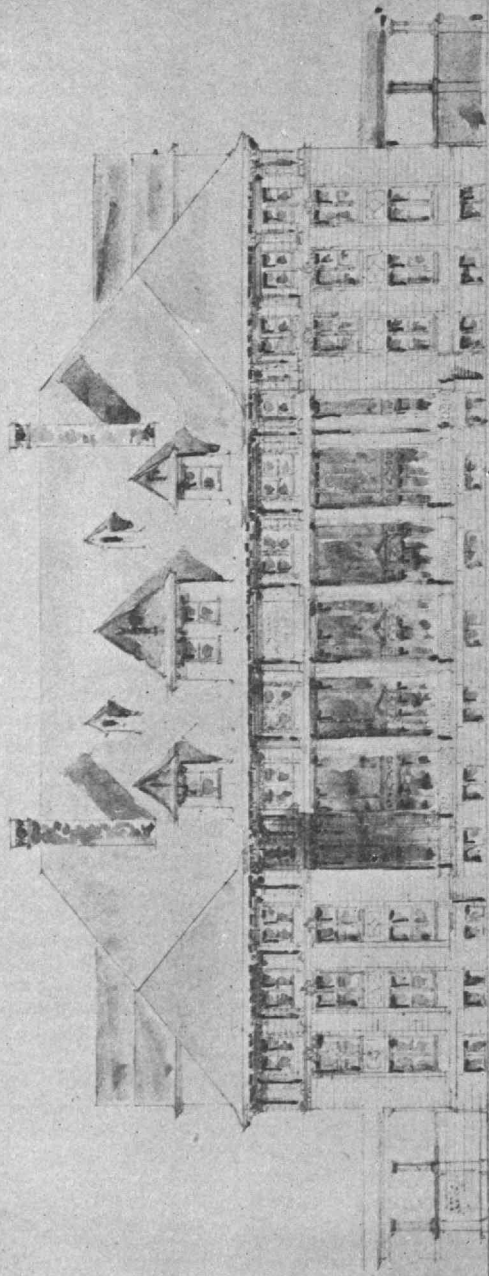
It has seemed to the committee, after careful consideration, distinctly undesirable to include the general dining hall in the Walker Memorial. We have endeavored to secure the maximum convenience of access between the two by a connecting arcade.

With reference to serving these purposes the following plan is presented:

THE BUILDING

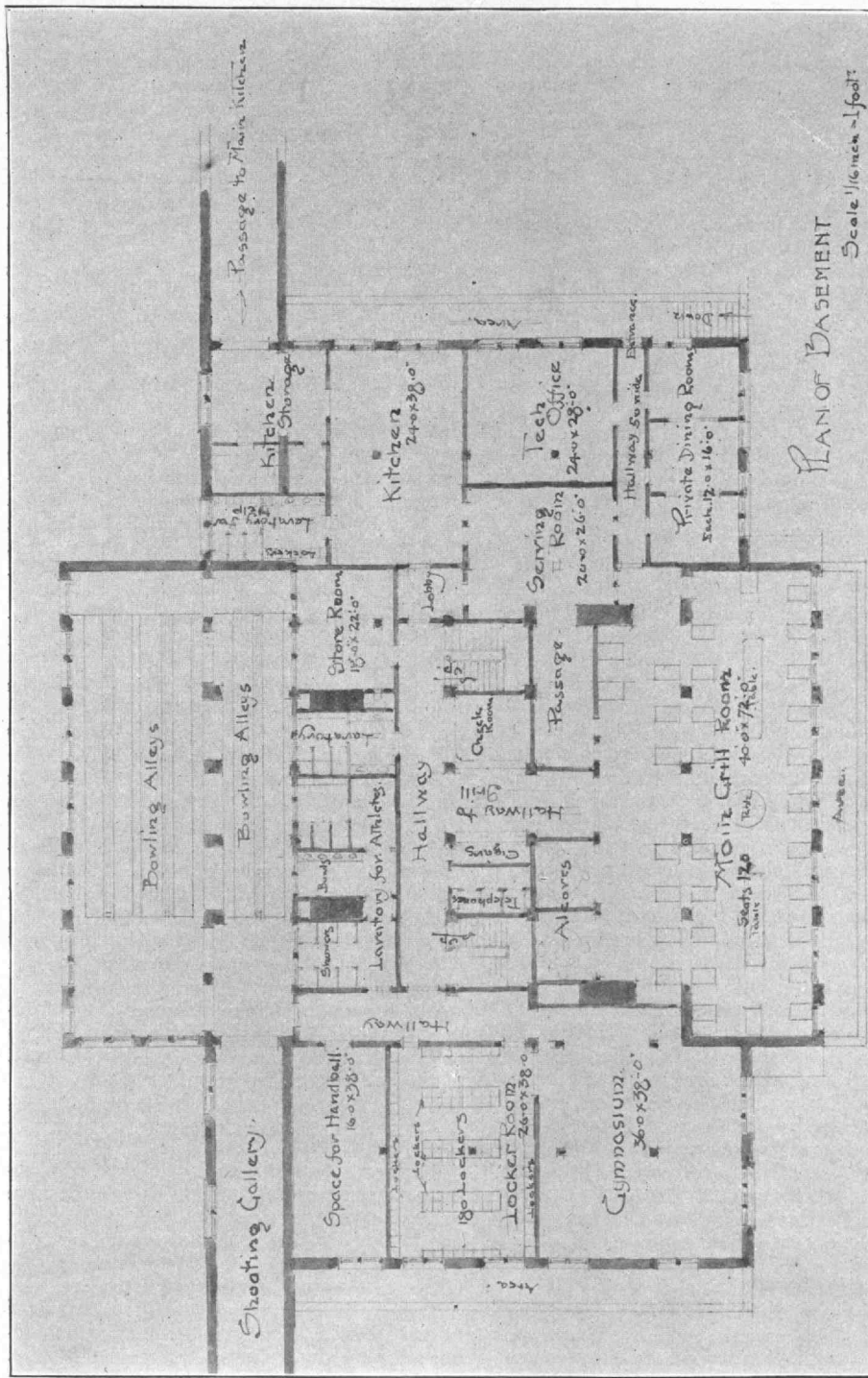
The architectural design and the choice of building material will naturally depend on the working out of the corresponding problem for the Institute as a whole. The memorial should be in its general character simple, dignified and attractive. It should be easy of access and of entrance on all sides, with abun-

SKETCH SUGGESTION
FOR WALKER MEMORIAL BUILDING



FRONT ON THE ESPLANADE

Scale 1/16" = 1 foot



Scale $1/16$ inch = 1 foot.

PLAN PROPOSED FOR WALKER MEMORIAL BUILDING (BASEMENT)

dant light and thorough ventilation. There should be ample provision in the form of porticos, terraces, etc., for such out-of-door sociability as has in the past found a limited place on Rogers' steps. Outdoor seats are desirable, as at Columbia University, for example.

In attempting to determine the appropriate size and proportions of the building and its parts, the committee has naturally been guided somewhat by the experience of other institutions, although differences of conditions necessarily restrict the validity of the comparison.

It seems to us important to provide for present and future attendance, but hardly less important to avoid the effect of a building too large for those who use it—bearing in mind the limited leisure of our students. The ground area should, we believe, be about 13,000 to 14,000 square feet.

THE INTERIOR

For the sake of definiteness in studying problems of interior arrangement, the committee has had sketch plans prepared by Mr. H. E. Kebbon, '12, and published in the *TECHNOLOGY REVIEW* for January, 1913. More recently revised plans have been prepared under the direction of Professor Taylor; these are submitted herewith for reference in connection with the following recommendations, with due regard to their provisional character.

There should be a basement and three floors, arranged approximately as follows:

The basement should include: a grill room seating 125 (2,000 sq. ft.), three smaller dining rooms—one open to ladies—seating ten to fifteen each, and arranged, when thrown together, to seat fifty (800 sq. ft.); a check room, cigar stand and telephone booths (700 sq. ft.); an auxiliary kitchen, serving room, pantry, service lavatory (1,500 sq. ft.); *The Tech* office (1,000 sq. ft.); a small gymnasium for squash, etc., with shower baths and lockers (3,000 sq. ft.); general lavatory (500 sq. ft.); ladies' retiring room (200 sq. ft.); a shooting gallery, without windows (10 x 80 ft.); six bowling alleys under the terrace (3,100 sq. ft.). Total net floor space 13,600 feet.

The basement should have an entrance from the arcade, and a service passage. The basement rooms should have not less than 10 to 12 feet height.

The first floor should contain a general living room (3,500 sq. ft.), with fire-places, settles, etc., open in general effect; a convenient check-room for day and evening use, connecting, if practicable, with that in the arcade (300 sq. ft.); reception room (200 sq. ft.);

office (300 sq. ft.); a library, reading room and writing room, with wall space for 100,000 volumes (smoking not allowed), (3,000 sq. ft.); Faculty and alumni reading, writing and smoking rooms (3,000 sq. ft.). Total, 10,300 sq. feet. This floor should be adapted as a whole for occasional use for evening receptions, etc. There should be an entrance from the arcade, as well as from outdoors. The living room should be about 25 feet high, the other rooms in the first floor about 12½ feet.

The second (mezzanine, floor should contain: an auditorium, seating 400, with a gallery seating 100, with movable chairs to admit its use for small dances, etc., ante-rooms, lavatories, etc., (3,500 sq. ft.); a billiard and pool room, with eight tables, card room and game room (3,500 sq. ft.); offices for the Walker Memorial committee, the House committee and the Institute committee (500 sq. ft.); for the Technology Christian Association (500 sq. ft.); for the Walker Club (300 sq. ft.), and for the Cosmopolitan Club (500 sq. ft.). Total 8,800 square feet.

The remainder of this floor would be occupied by the upper part of the living room, over which small galleries might look.

The auditorium should be about 20 feet in height, the other rooms about 10½ feet.

The third floor should be divided into offices for student activities, including *Technique* (1,000 sq. ft.); musical clubs (1,000 sq. ft.); Tech Show (1,000 sq. ft.); additional rooms for study and committee meetings.

A few sleeping rooms for guests of the Institute might also be provided. The auditorium will extend up through this floor. The height of rooms should be about 10 feet.

The building should be constructed in such a way that future expansion would not be impossible.

A comparison of main features of the proposed Walker Memorial with similar buildings will be found in connection with the account of student unions at other institutions.

ORGANIZATION AND ADMINISTRATION

While matters of organization and administration lie somewhat outside the field of the present committee, we have found it hardly practicable to deal with the other questions independently of these, and accordingly submit certain suggestions in regard to them:

The Walker Memorial should be organized as a club, with an active membership including all male students, paying annual dues of say \$4, and an associate membership open to instructive staff and alumni, with annual dues of \$10 for those living within fifty miles, \$5 for

those living outside that limit. Membership cards should be used.

The provision for associate membership should not be regarded as implying the least restriction on visits to the Walker Memorial by alumni who are not associate members. All alumni visitors should be welcome.

The immediate management should rest primarily with a house committee elected by the undergraduates, which should have power to make and administer rules for the use of the club by active members, subject to the approval of the President of the Institute.

The plan of organization and the house rules should be worked out in detail by the present Institute committee.

The business and financial management of the club should be exercised under the general direction of the President and Corporation of the Institute by a Walker Memorial Committee of seven, including three representatives of the alumni, two of the Faculty, and two of the undergraduates—for example, the president of the Institute committee and the chairman of the house committee. This committee might well be organized in the near future. The present Walker Club might well be assigned some special responsibility. Rooms for student organizations should be reallocated annually. Organizations not representing the whole student body should pay a small rental for the exclusive use of the auditorium.

Particular pains should be taken, with the minimum exercise of authority, to develop and maintain high standards of orderliness, decorum, and good taste. It should be a gentleman's club in the best sense, to be worthy of its name.

The persistent misuse of its privileges should entail suspension or forfeiture of membership.

Billiards and bowling should be self-supporting, or better, and should be restricted, if needful, against excessive use by the individual student.

There should be a graduate treasurer, and a superintendent or manager, capable of checking any real breach of discipline very promptly.

Special care should be taken to make the building attractive on Sundays. Religious services might be held regularly in the auditorium by arrangement with outside clergymen through the Technology Christian Association. Sunday afternoon concerts would be desirable.

The grill room should be somewhat superior in service, accessories and prices to the general dining hall, but all supplies should be purchased through a single officer, and economy by coöperation should be sought.

PROVISION FOR FACULTY AND ALUMNI

The Walker Memorial, as above described, would seem likely to meet the social needs of the instructing staff to a considerable extent. In common with the alumni, they have rooms for reading, writing and smoking. The grill room and the special dining rooms will be shared by them with undergraduates. For special occasions either dining room might be secured in the evening, as might also the auditorium on the second floor. The gymnasium, baths and lockers in the Walker Memorial may include special provision for the staff and alumni. It is assumed that provision will be made elsewhere for the Technology teas, etc.

In recommending this provision for instructing staff and alumni, it is our belief that this will involve no sacrifice of the primary purpose of the memorial to serve the social needs of the students. We are convinced rather that such association with older men, as our plan promotes, will be both desirable and welcome to the students.

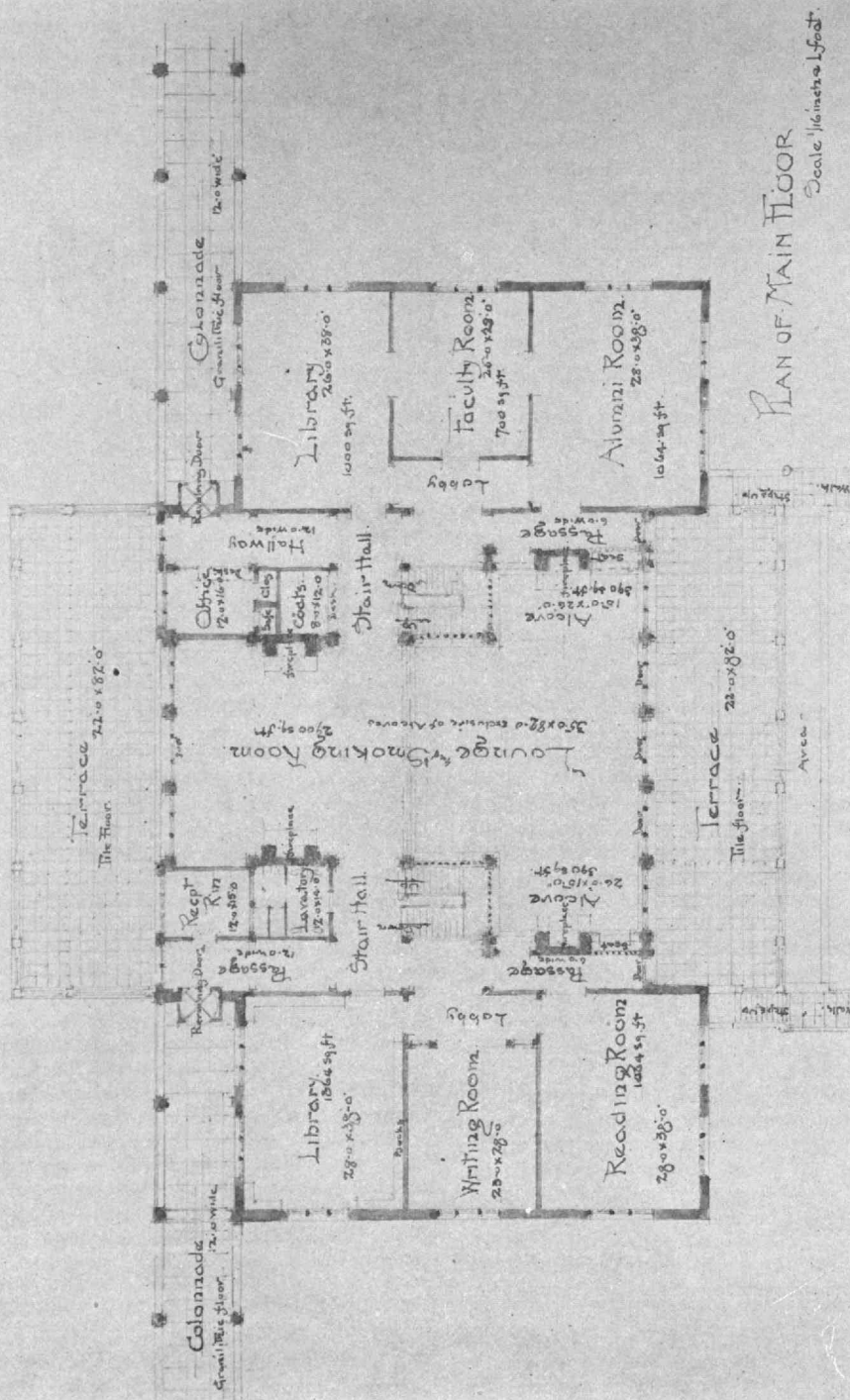
We recommend that the relation of the alumni as donors of the Walker Memorial be expressed each year by a meeting under the auspices of the Alumni Association at which new students shall be welcomed to membership in the Walker Memorial.

THE ARCADE

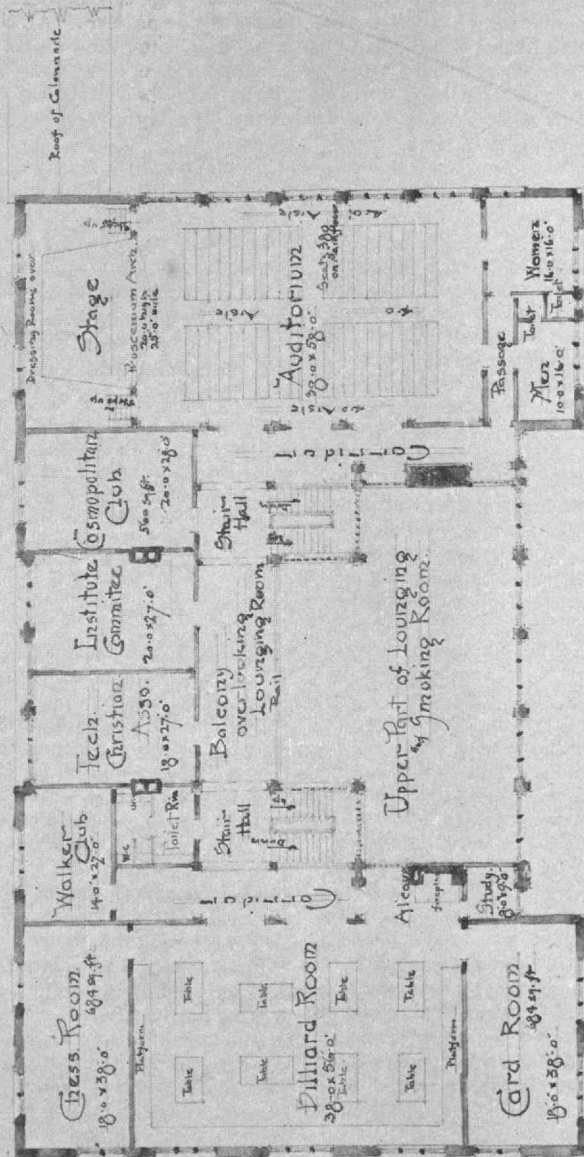
This is designed primarily to facilitate passage between the Walker Memorial and the dining hall, so that the former shall be used by the maximum number of students. At the same time it should afford a most favorable location for many important adjuncts; for example, the student post-office—which might perhaps be a United States substation (400 sq. ft.), a check room, in connection if possible with that in the Walker Memorial (200 sq. ft.); a book and stationery store (800 sq. ft.); a news stand, soda fountain, confectionery and tobacco stands (500 sq. ft.); a barber shop etc. (300 sq. ft.); provision for any necessary number of lockers. These items should yield a substantial revenue. The arcade might well have two stories; there should at any rate be passage between both the basements and the first floors of the Walker Memorial and the dining hall, including a convenient service passage in the basement.

STUDENT UNIONS AT OTHER INSTITUTIONS

(This is based on a report prepared for the committee by Mr. J. H. Scarff, on Mr. H. E. Kebbon's article in the *TECHNOLOGY REVIEW* for January, 1913, and on reports prepared under the direction of Mr. J. R. Freeman.)



PLAN PROPOSED FOR WALKER MEMORIAL BUILDING (MAIN FLOOR)



PLAN OF MEZZANINE FLOOR

Scale: 1/16 inch to one foot

The student unions which have been studied by the committee, or its representatives, include those at the following institutions: Brown, Chicago, Dartmouth, Harvard, Lehigh, McGill, Michigan, Ohio, Pennsylvania, Toronto, Yale. Among these, Rockefeller Hall at Brown, Houston Hall at Pennsylvania and the Ohio Union, have impressed us as corresponding most closely with our own needs and plans, while Hart House, now under construction at Toronto, is most impressive in its scale and completeness.

Houston Hall erected in 1896, as a memorial of a Pennsylvania student, cost about \$100,000 and covers 12,000 square feet. Membership here is required of the 3,500 students, with a fee of \$3. It is said to be too small.

The Ohio Union, completed in 1910 at a cost of \$100,000, provides for 2,000 students and has a ground area of 9,000 square feet. Membership is compulsory for undergraduates—a policy of their own choice—and is open at the same rate to the Faculty and resident alumni. The restaurant problem has given some difficulty, but seems to be approaching solution. Bedrooms for university guests are included. The kitchen (1,100 sq. ft.) is said to be too small. Bowling alleys and a lunch counter are placed together. The whole building is said to be in constant use.

Rockefeller Hall, built in 1910, covers 7,700 square feet, and cost \$100,000 (23½ cents per cu. ft.). The membership is about 725.

In the Harvard Union, which cost \$150,000 in 1901, membership is voluntary, and the participation of alumni is greater.

The McGill Union, built in 1906, covers but 6,600 square feet, but cost \$170,000. It is said to be "the best designed building in Montreal." The male undergraduates number about 1,300.

Hart Hall at Toronto, now under construction, includes a gymnasium and swimming pool as well as the usual features of a union; it has a ground area of 75,000 square feet, and is expected to cost \$1,500,000. For more convenient comparison some of the principal features are tabulated below:

IV

THE GYMNASIUM AND SWIMMING POOL

PURPOSES

The primary and chief purpose of the gymnasium—as of the athletic field, swimming pool, etc.—is the combination of physical education and physical recreation for our students, without which they will lack the

health and knowledge of right living necessary for achieving the highest results either as engineers or as men. At the same time it is important that there should be an active interest in competitive athletics. Within limits this is beneficial in itself, and may contribute greatly toward the general physical welfare.

In planning the gymnasium and its accessories, it has been deemed important to provide for:

1. Required physical training, based on physical examination.
2. Voluntary gymnasium work to meet a limited demand.
3. Track athletics, baseball, and tennis.
4. Swimming and water sports.

In the allotment of space proposed, little regard has been given to possible future growth. It has been assumed that there would be no great development of intercollegiate athletics, but an increasing interest in outdoor exercise. Attention is called to important letters, submitted herewith, from the physical directors of other institutions.

GYMNASIUM

The gymnasium should be not less than 166 by 234 feet,* naturally conforming in its architectural lines to the general scheme.

The building, as planned, consists of four main divisions: an indoor exercise gymnasium, 120 by 198 feet and 26 feet high; a swimming pool and accessories, 44 by 90 feet, with a glass roof, 22 feet high; a main gymnasium, 120 by 150 feet, covering the greater part of the lower gymnasium, and 35 feet high; numerous smaller rooms, as described below, occupying the remainder of the two gymnasium floors and two mezzanine floors.

First floor: The large exercise floor is devoted mainly to voluntary athletics. The greater part of the floor is of cinders and clay in such proportions as to insure good footing for running, jumping, pole vaulting, etc. The cinder track is 15 feet wide and 440 feet long—12 laps to the mile—affording ample opportunity for indoor running in bad weather. This room should have as much window space as possible on two sides, with windows so adjusted that by simple manipulation the whole can be thrown wide open. The end opposite the swimming pool will also have a skylight.

Swimming pool: The necessity of provid-

* The sketch plans published in the TECHNOLOGY REVIEW (January, 1913) were prepared for the committee by Mr. A. W. Jackson, '96; those accompanying this report and referred to in the text have been drawn for the committee by Professor Taylor, and like those of the Walker Memorial are to be regarded as preliminary studies.

PRINCIPAL FEATURES OF THE PROPOSED WALKER MEMORIAL IN COMPARISON WITH OTHER STUDENT UNIONS

	Students	Dues	Ground Area	General Living Room Area	Auditorium Area (and Seats)	Restaurant Area	Billiards Area	Library Reading Room Area	Cost Unfurnished
Walker Memorial	2,000†	\$4	13,000	3,500	3,000 (500)	2,000 (*2,000)	2,000	2 x 2,500	\$225,000
Tech Union	1,600		4,500	2,700		3,700		Gen. Library 2,600	
Houston Hall (Penn.)	3,000	\$3	12,000	1,750	2,400 (400)	1,100	4,000	1,760	\$100,000
Ohio Union	2,000	\$2	9,200	2,800	1,800	3,450	1,800	540	\$120,000
Brown Union	700	\$4	7,700	1,630	2,250 (325)	1,050	1,575	2 x 1,575	\$100,000
Hart House (Toronto)		\$2-4	79,000*						\$1,500,000
McGill Union	1,300		6,600	1,800	4,000 (400)				\$170,000
Harvard Union		\$10		3,800		2,030 740†		2 x 2,000 3 x 875	\$150,000
Reynolds (Chicago)	500† 200‡			2,200	5,250	2,700	2,000	2,400	

* Including gymnasium and pool.

† Members.

‡ Associate members.

ing this seems to the committee obvious. Everybody should be able to swim, but this is especially true of men in outdoor professions, whether on land or water. We believe it should be a requirement at the Institute, as it already is at several universities, that every student should learn to swim. The pool itself should have the standard dimensions 75 by 30 feet.

The depth of the water would vary from 9 feet at one end to $4\frac{1}{2}$ feet at the other end. Entrance to the pool should be from the center of its four sides, with enough floor space at its edges to allow of easy passing. At one end adequate space must be provided for a "run" before diving or fancy tumbling. All this construction is to be of tile. A gallery surrounding the entire tank should be some fourteen feet above the edge of the pool and have a seating capacity for several hundred.

The water will be filtered in on one long side and taken off on the opposite side by skimming weirs at the surface. It will be changed entirely every forty-eight hours, and the temperature kept at 76 degrees during the winter months. A sludge pit in the bottom will facilitate cleaning. The pool is to be sterilized by the addition of hypochlorite of calcium or soda in the proportion of ten pounds to a million gallons of water. Suitable showers (15) will be provided for, and the purity of the pool will be maintained not only by the foregoing devices and regulations, but by requiring that a shower bath be taken before entering the pool, and that no clothing whatever be worn in the pool. An instructor in swimming and an assistant should always be in attendance as a precaution against accident. The building should be of the best construction, amply lighted, and kept scrupulously clean.

The remainder of the first floor will be devoted to: shower-bath, and drying room (1,100 sq. ft.); locker-room (2,100 sq. ft., 500 lockers); toilets (300 sq. ft.); quarters for visiting teams (1,000 sq. ft.), with lockers, baths and toilet; office for team manager (600 sq. ft.); coat-room, safe, etc. (700 sq. ft.); storage etc. (2,200 sq. ft.). These rooms will have a height of 10 to 12 feet.

The lower mezzanine floor will contain: a gallery overlooking the swimming pool; shower-baths, lockers and toilets, approximately duplicating those on the floor below; a room for the home track team with showers, lockers, and toilet (1,000 sq. ft.); directors' office (1,100 sq. ft.); a lecture room (1,800 sq. ft.); and a committee room (1,000 sq. ft.). These rooms will also be about 12 feet high.

The Main Gymnasium (120 x 150 and 35

ft. high) will be devoted to required physical exercise or class work. It should contain the best possible equipment, including at least four sets of heavy floor apparatus, with horses, bucks, parallel bars, horizontal bars, vaulting bars, spring-boards, flying rings, traveling rings, climbing ropes, jumping stands, as well as chest weights, medicine balls, dumb-bells, wands, Indian clubs and mats. The windows should be so planned that they will not only supply ample light, but admit of free circulation of air. These windows should be at least six feet above the floor in order to give sufficient wall space for apparatus. They should be numerous enough to obviate any need of skylights, with their inevitable tendency to leakage and overheating. This room should be adapted for occasional use for large dinners—unless these are provided for in the dining hall—and for large dances. This would naturally imply a serving room, dressing rooms, etc.

This floor will also contain: four squash courts (18 x 32 ft.); two hand-ball courts (24 x 60 ft.); two wrestling rooms (27 x 28 ft.); a room with baths for corrective gymnastics (1,100 sq. ft.); and a store-room (700 sq. ft.). These rooms will be about 12 feet high, except the hand-ball courts, which must be 35.

The upper mezzanine floor: This floor should contain a balcony seating 250 and overlooking the main gymnasium; two squash courts (18 x 32 ft.); two boxing rooms (28 x 28 ft.); a punching-bag room (24 x 28 ft.); a fencing room (28 x 40 ft.); and the upper part of the hand-ball courts.

GYMNASIUM DIRECTOR

The director of the gymnasium should be a man of medical training and of Faculty rank. As such he might well act as medical adviser, with daily office hours, and also have teaching duties in the department of biology and public health. The present provision for medical advice seems to the committee inadequate, and more so in the new location than in the present one. The director should have at his disposal suitable quarters and all necessary appliances for dealing with emergency cases of accident or illness on the campus.

GYMNASIUMS OF OTHER INSTITUTIONS

The following statement gives comparative data for the proposed gymnasium and some of the best of recent college gymnasiums.

THE ATHLETIC FIELD

The athletic field needs to be convenient of access from the outside lines of communication, and as already stated should be screened

COMPARATIVE DATA ON GYMNASIUMS

	Number of Students	Date of Erection	Ground Area Sq. ft.	Main Floor Sq. ft.	Lockers	Track (laps per mile)	Cost	Budget	Physical Training Required (Years of)
<i>M. I. T.</i> Present Proposed*	1,600 2,500		39,000	7,200 18,000 (120 x 150)	200 1,100	12	\$300,000	\$12,000†	1 1
<i>Harvard.</i> Present Proposed	3,000	1879		7,000 9,000	2,500 6,000		\$111,000 \$1,000,000	\$13,000	
<i>Dartmouth</i>	1,300	1911	50,000	16,000 (200 x 80)	800†	$\begin{cases} 6 \\ 10 \end{cases}$	\$180,000	\$4,800	1
<i>Bowdoin</i>	400	1912	11,200	8,200 (107 x 77)	500	14	\$100,000		All years
<i>Chicago</i>	2,000†		70,000	16,000 (200 x 80)					
<i>Columbia</i>	1,600†	1896	46,000	22,600 (169 x 134)				\$15,000	
<i>Pennsylvania</i>	3,000†	1904	18,600	9,800 (144 x 68)	3,400			\$22,500	All years
<i>Princeton</i>	1,600	1903	39,000	16,800 (166 x 101)			\$300,000	\$21,000	1
<i>Syracuse</i>	1,800†	1908	33,000	21,000 (210 x 100)	1,650		\$325,000		

* Including swimming pool.

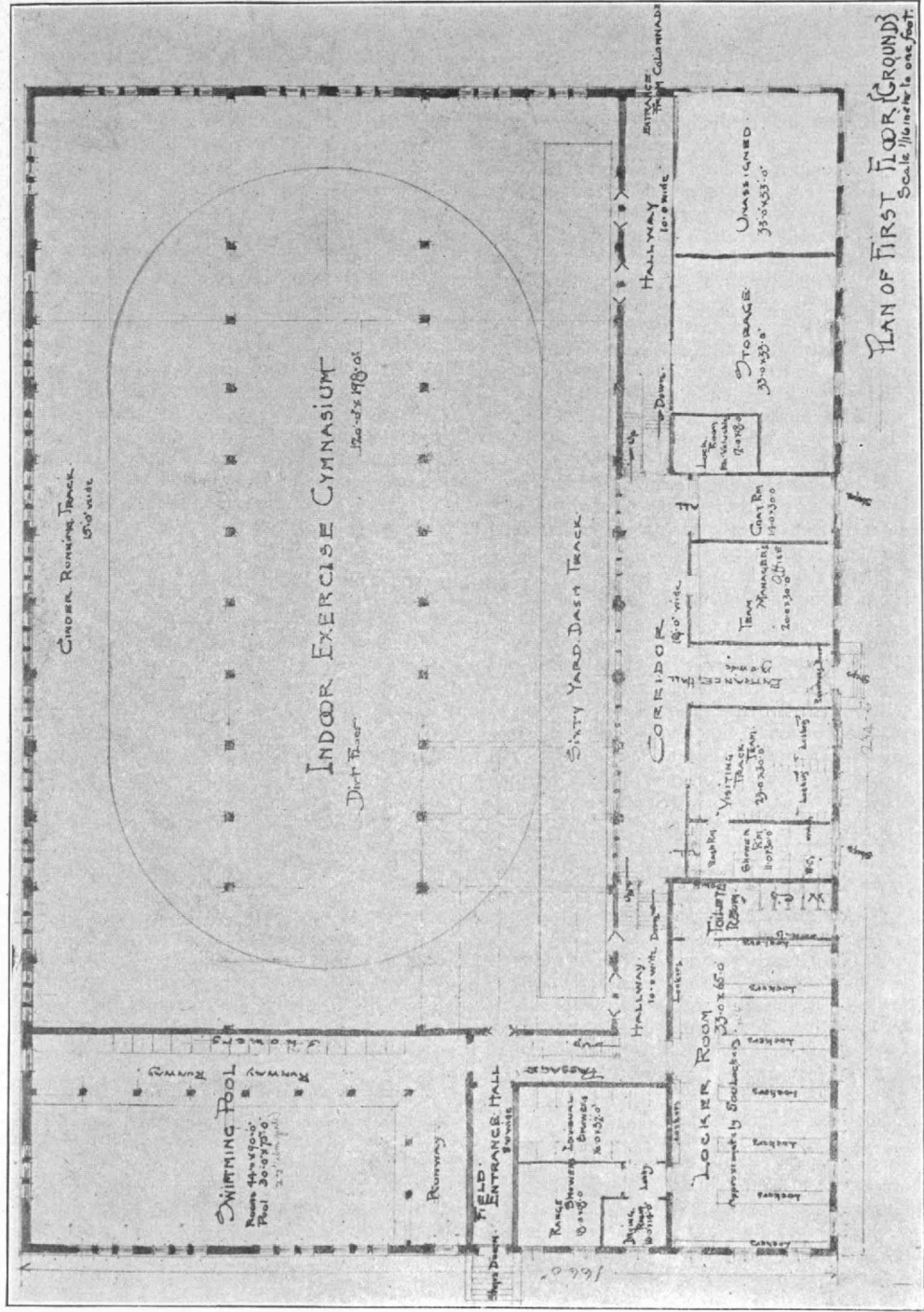
† Estimated.

SUGGESTED DESIGN FOR GYMNASIUM FOR MASS. INSTITUTE OF TECHNOLOGY.



FRONT-ELEVATION.

Scale sixteen feet to one inch



FIRST FLOOR OF PROPOSED GYMNASIUM

in order not to sacrifice gate receipts, and so located as not to interfere with convenient passage between buildings.

The following plan for an athletic field has been prepared for the committee by the advisory council on athletics. The drawing corresponds with the location along Vassar street, previously recommended in this report. In case a different location should be assigned by the Corporation, the arrangement of the field would probably require some revision.

The main features of the proposed field are as follows: a 220-yard straightaway track; a quarter-mile running track, inclosing a football field and provision for high jump, pole vault, hammer throw and discus; a baseball diamond; six courts for tennis and ten for hand-ball; spaces for running broad jump, shot put and quoits; grand-stand and fence. The whole makes a rectangle approximately 445 by 1,000 feet.

The grand stand should be 555 feet long by 50 feet deep. It should have 17 rows of seats, each 13 to 14 inches deep, with 18 to 19 inches foot-space, giving a seating capacity of approximately 4,000 (22 in. width per person). The floor for the front row of seats should be 6 feet from the ground.

At each end of the street frontage, there should be a ticket office with four windows, 5 feet apart. There should be entrances from the street beginning 50 feet from the northwest corner, at intervals of 120 feet, and corresponding steel stairways leading to the eighth or tenth row of seats. Passages 3 feet wide should ascend on each side of the stair openings to the upper rows of seats, and straight passages 4 feet wide should lead to lower rows.

In front of the grand stand should be a press box, 8 by 60 feet. In case of need, temporary stands could be erected on the opposite side of the track.

The running track should be 20 feet wide on the south, 25 feet on the north (including the 220 yard extension), with a radius of 118 feet for the ends. This makes each curve 365 feet, each straight section 295 feet, the entire circuit 1,320 feet, equal to one-quarter mile. The 440-yard run will require one turn, the 880-yard, three when run from the 220-yard start. There should be a 4-foot picket fence on the north side of the 220-yard extension of the track to keep out boys and men during the summer, as well as when the field is in use.

The discus and hammer throw could not be used at the same time with football.

No special reservation for "soccer" football seems feasible at this time.

The running high jump and pole vault should have a space 40 by 145 feet with jumping boxes

16 feet deep at each end, and should allow of simultaneous work. The pole vaulting and high jumping would not interfere with other field or track practice.

Five of the six tennis courts should be 60 by 110 feet, and one should be reserved, of tournament dimensions, viz., 60 by 120 feet. Opportunity is afforded for temporary stands on the north, east and south sides.

The quoit court should be 50 by 80 feet, allowing at least four and probably six courts.

The hand-ball courts should be 70 by 105 feet (for 10 courts), the concrete end of the grand stand forming the necessary wall on that side with back wall and side wall on the east, 35 feet high.

The shot put space should be 70 by 90 feet; that for the running broad jump 70 by 205 feet, including a run of 120 feet, a 30-foot pit at each end, and 12½ feet free at each end.

Ample provision for baseball is exceedingly important, as no outdoor exercise is more popular in the season. Two diamonds outside the running track should be provided, if possible, as shown in the accompanying drawing. Interclass, intercourse and championship games could be held at the northwest end of the oval, inside the running track.

The estimated cost of construction, including blind drainage for track, baseball field, tennis courts, football field, shot put, broad jumps and quoits, pole vault and high jump spaces, including grading, and loaming inside track and outside baseball diamond, is \$20,000, not including "direct drainage" (if such should be necessary). The grand stand would probably cost \$20,000, the fence—if of iron with concrete base—\$4,500.

For further details, the plan and the accompanying memorandum of the advisory council on athletics should be consulted.

It is also recommended that tennis courts be laid out in the quadrangles of student houses. If this should not furnish a sufficient number, additional courts should be laid out north of Vassar street, with passages under the street.

BOATING

The committee regards it as important that provision should be made for rowing, skating, etc. In the words of President Maclaurin: "The site presents unrivaled opportunities for boating, and this sport must be developed in a manner that will suit the conditions that prevail at the Institute." We are not yet prepared to offer more specific recommendations, but expect to submit a supplementary recommendation in the near future.

V

MAINTENANCE

FINANCIAL CONSIDERATIONS

The committee has not considered it within its province to attempt a definite estimate of the initial cost or the maintenance charge of the various matters discussed in the report. On the other hand, it would seem somewhat futile to present these recommendations without some reference to the financial side.

On the basis of such data as we have studied from other institutions, it seems probable that the following may fairly serve as a first approximation:

FIRST COST

Walker Memorial building	\$225,000
Equipment and furniture	40,000
Arcade	10,000
Gymnasium and swimming pool	300,000
Equipment	12,000
Athletic field, grand stand, etc.	45,000

In presenting a program involving the expenditure of more than half a million dollars to meet the social and physical needs of our students, we have based our expectations not merely on the Walker Memorial Fund already in hand, but on the appreciation of these needs expressed by President MacLaurin and the Alumni Fund committee. In his circular letter of March 20, 1912, the President said: "The Walker Memorial has commended itself to the generosity of the alumni for years, and a considerable sum has been subscribed for its erection. Much more, however, is needed to make this building a worthy memorial of the great President and the great humanist in whose honor it is to be built. It should comprise a complete equipment for social activities amongst our students, and it should contain, or be closely associated with a gymnasium that is the best that can be devised for our special needs. The athletic field on the new site should be laid out in a manner that will encourage the advisory council on athletics (to whose sane athletic policy the Institute owes so much) to continue their efforts to promote athletics in all their manly forms, as a healthy exercise and not as an absorbing business."

In line with this, the Fund Committee circular of April 9, 1912, added: "It, therefore, remains for the alumni to provide for the equipment of the buildings, for laying out the grounds, for dormitories, for adequate facilities for athletics and for an enlarged Walker Memorial, including the gymnasium and a complete social center. Such a memorial will cost much more than the \$133,000 now on hand for this purpose."

It is more difficult to estimate the annual budget, because so many of the factors involved cannot yet be foreseen. So far as we can draw any inferences from available data, it seems not unlikely that the Walker Memorial may require an income of about \$10,000 to \$15,000 from dues, and that the gymnasium and pool may need about \$15,000 per year.

In view of the high tuition fee our students pay, we believe they are fairly entitled to the privileges of the gymnasium and the athletic field, and should not be charged with their maintenance beyond moderate fees for lockers, tennis, etc. For the Walker Memorial, unless a considerable endowment fund is provided, it will be necessary to charge a small membership fee, and in our judgment this should take the usual form of an addition to each tuition bill, amounting to \$2 in each half-year. Such a charge will have the important advantage of giving the students a sense of real ownership and responsibility, not otherwise attainable. They will have a higher appreciation of the privileges of the Walker Memorial if they bear this moderate fraction of their cost. To most students the small fee proposed will imply no sacrifice. Those who might not become members, if membership were optional, are a class to whom such membership would have great value. In particular cases the fee, like the tuition, might be covered by scholarship grants.

Associate members of the Walker Memorial should also pay dues of \$10 or \$5, as previously stated. This might produce revenue as follows:

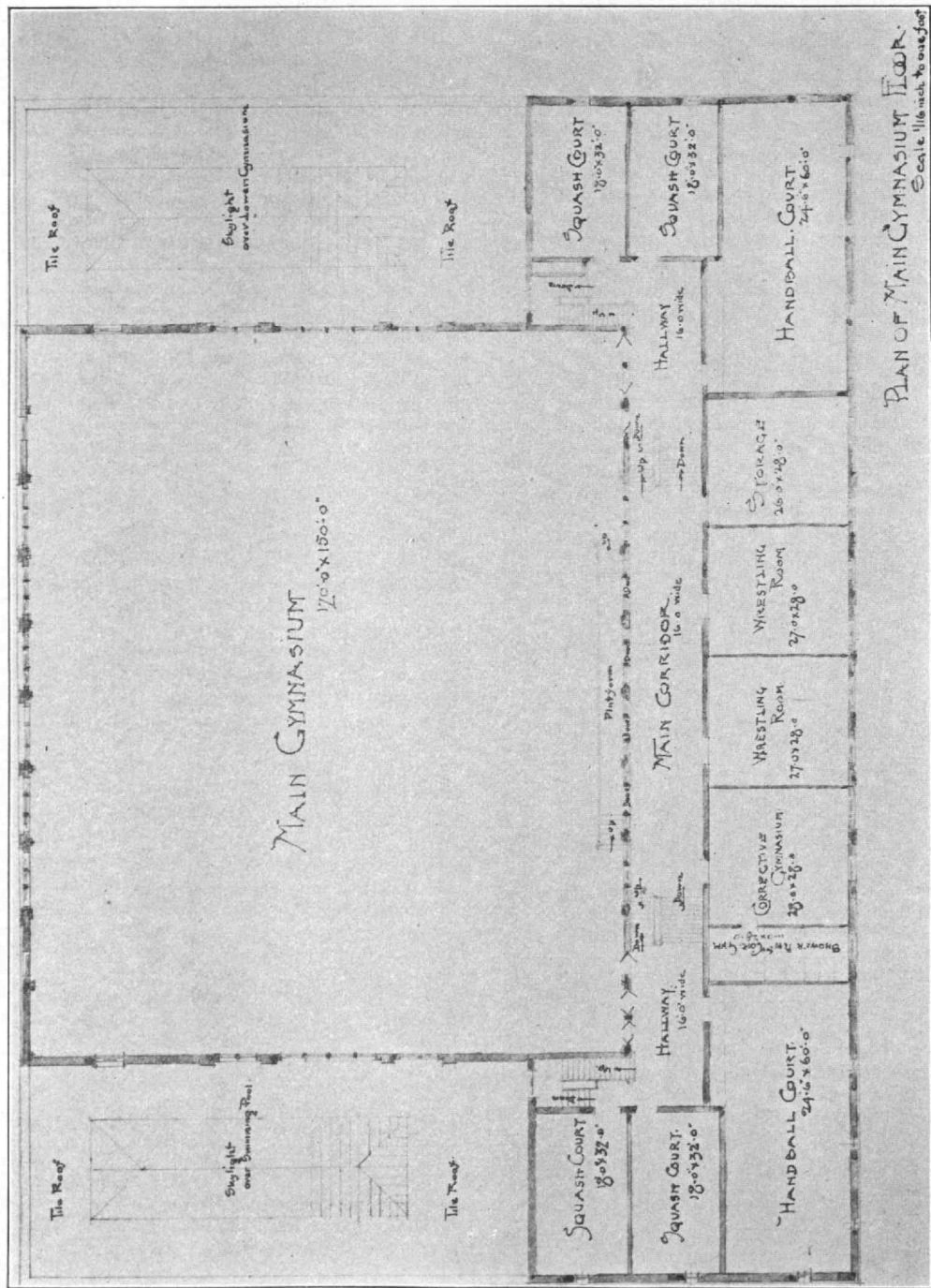
2,000 students at \$4	\$8,000
500 resident associate members at \$10 (including 200 instructing staff)	5,000
200 non-resident associate members at \$5	1,000
	<hr/>
	\$14,000

The financial business of the memorial should be wholly on a cash or advance-payment basis by means of coupons. Additional revenues which can hardly be estimated at this time would be derived from billiards, bowling, and the bookstore, barber, etc., in the arcade.

SUMMARY OF RECOMMENDATIONS

LOCATION

1. The Walker Memorial should be convenient of access not only for students on



PLAN OF MAIN GYMNASIUM FLOOR.

MAIN FLOOR OF PROPOSED GYMNASIUM

the campus, but for those living outside, and for persons attending evening affairs.

2. As a memorial it should have a conspicuous site and an architecturally impressive exterior.

3. The gymnasium should be convenient of access for students on the campus.

4. The Walker Memorial and the gymnasium should be located with reference to permanent use; the athletic field for occupancy for not less than 25 years.

5. The athletic field should be so located as to admit of inclosure and to have on one side a 220-yard track without interfering with direct passage between buildings.

6. The location preferred for the Walker Memorial is on the Esplanade, near Massachusetts avenue.

7. The Walker Memorial should be near the dining hall and the two should be connected by an arcade.

8. The location preferred for the gymnasium is the corner of Massachusetts avenue and Vassar street.

9. The swimming pool should be located at the south side of the gymnasium.

10. The location preferred for the athletic field is along Vassar street, eastward from the gymnasium.

11. It is assumed that the space along Massachusetts avenue between the Walker Memorial and the dining hall at one end and the gymnasium and swimming pool at the other would then be used for quadrangles of student houses.

12. The ground area should be approximately as follows:

Walker Memorial.....	13-14,000 sq. ft.
Gymnasium and swimming pool.....	39,000 sq. ft.
Athletic Field, including tracks and grand stand, etc.....	450,000 sq. ft.

13. There should be porticos, terraces and out-of-door seats.

WALKER MEMORIAL

14. The basement should include a grill room seating 125 (2,000 sq. ft.), three smaller dining rooms—one open to ladies—seating 10 to 15 each, and arranged when thrown together to seat 50 (800 sq. ft.); a check room, cigar stand and telephone booths (700 sq. ft.); an auxiliary kitchen, serving room, pantry, service lavatory (1,500 sq. ft.); *The Tech* office (1,000 sq. ft.); a small gymnasium for squash, etc., with shower baths and lockers (3,000 sq. ft.); general lavatory (500 sq. ft.); ladies' retiring room (200 sq. ft.); a shooting gallery without windows (10 x 80 ft.); six bowling alleys under the terrace (3,100

sq. ft.). Total net floor space 13,600 sq. ft. The basement rooms should have not less than 10 to 12 feet height.

15. The first floor should contain a large living room (3,500 sq. ft.), with fireplaces settles, etc., open in general effect; a convenient check room for day and evening use, connecting, if practicable, with that in the arcade (300 sq. ft.); reception room (200 sq. ft.); office (300 sq. ft.); a library, reading room and writing room, with wall space for 10,000 volumes (smoking not allowed) (3,000 sq. ft.); Faculty and alumni reading, writing and smoking rooms (3,000 sq. ft.). Total 10,300 feet. This floor should be adapted as a whole for occasional use for evening receptions, etc.

16. Both basement and first floor should have entrances from the arcade, as well as from the outside.

17. The second (mezzanine) floor should contain: an auditorium, seating 400, with a gallery seating 100, with movable chairs to admit of its use for small dances, etc., ante-rooms, lavatories, etc. (3,500 sq. ft.); a billiard and pool room, with 8 tables; card room and game room (3,500 sq. ft.); offices for the Walker Memorial Committee, the House Committee and the Institute Committee (500 sq. ft.); for the Technology Christian Association (500 sq. ft.); the Walker Club (300 sq. ft.) and for the Cosmopolitan Club (500 sq. ft.). Total 8,800 square feet. The auditorium should be about 20 feet in height, the other rooms about 10½ feet.

18. The third floor should be divided into offices for student activities, including *Technique* (1,000 sq. ft.), musical clubs (1,000 sq. ft.), Tech Show (1,000 sq. ft.), additional rooms for study and committee meetings. A few sleeping rooms for guests of the Institute might also be provided. The height of rooms should be about 10 feet.

19. The building should be designed with reference to the possibility of future expansion.

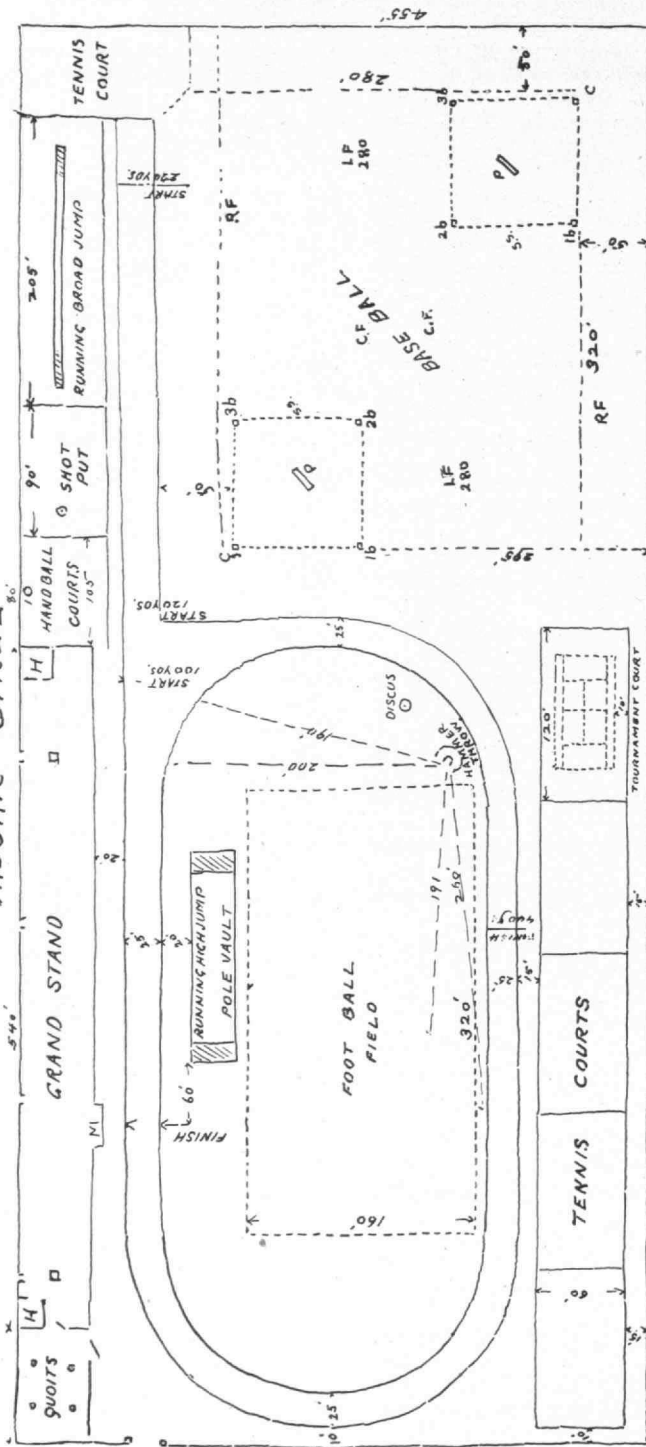
ORGANIZATION AND ADMINISTRATION OF WALKER MEMORIAL

20. All male undergraduates should be active members, organized as a club with membership cards.

21. Associate membership should be open to members of the instructing staff and alumni. Other alumni should always be welcome.

22. Dues for active members should be \$4 per year; for associate members \$5 for those living within fifty miles, \$10 for those outside that limit. The student dues should be collected in the form of an addition of \$2 to each term bill.

VASSAR STREET



0 100 200 300 400 500 FT.

SCALE

PROPOSED LAY-OUT FOR ATHLETIC FIELD

23. The active members should elect a house committee to make and administer rules, subject to the approval of the President of the Institute.

24. There should be a graduate treasurer and a superintendent.

25. The business and financial management should be exercised under the general direction of the Corporation, by a Walker Memorial Committee of 7, including 3 representatives of the alumni, 2 of the Faculty, and 2 of the undergraduates—for example, the chairmen of the House Committee and of the Institute Committee.

26. All rooms for student activities should be subject to annual reallocation by the committee of seven.

27. Persistent misuse of privileges should entail suspension, or forfeiture of membership.

28. Pains should be taken to make the place cheerful and attractive on Sundays. Religious services should be arranged (by the Technology Christian Association) for Sunday morning, and concerts should be arranged for Sunday afternoons.

29. The purchase and care of supplies, and to some extent the cooking for the Walker Memorial, should be conducted in connection with the general dining room.

30. Billiards, bowling, etc., should be made self-supporting (or better) if practicable.

31. Student organizations not representing the student body as a whole should pay a small rental if they desire the exclusive use of the auditorium.

32. Smoking should not be allowed in all rooms.

FACULTY AND ALUMNI

33. A special dining room and smoking room should be assigned to Faculty and alumni; they should share the grill-room and special dining rooms with the students. The gymnasium should include special provision for instructing staff and alumni.

34. There should be an annual meeting held by the Alumni Association to welcome new students to membership in the Walker Memorial.

ARCADE

35. The arcade should include two floors, or one above the basement, with lockers, student post-office (400 sq. ft.); check-room (200 sq. ft.); store (800 sq. ft.); news stand, soda fountain, confectionery and tobacco stand (500 sq. ft.); barber shop, etc. (300 sq. ft.).

GYMNASIUM AND SWIMMING POOL

36. The building should be about 166 by 234 feet.

37. The lower floor should contain a large exercise room 120 by 198 feet, a swimming pool 30 by 75 feet, and accessories.

38. Particular attention should be devoted to the lighting and ventilation of the lower gymnasium as well as of the upper part of the building.

39. The upper exercise room should be 120 by 150 feet with accessories.*

40. There should also be two mezzanine floors for small rooms.*

41. The upper exercise room should be arranged for occasional use for large dances and dinners, unless these are provided for elsewhere. This implies a partial kitchen equipment.

42. There should be a gallery around the pool with seats for several hundred.

43. An instructor in swimming, and an assistant, should be in constant attendance.

44. Careful attention should be given to cleanliness and sterilization of water, with frequent bacteriological examinations.

PHYSICAL DIRECTOR

45. There should be a gymnasium director of medical training and Faculty rank.

46. As medical adviser he should give lectures on hygiene and should have daily office hours with suitable quarters and appliances for emergency cases.

ATHLETIC FIELD

47. The field should be accessible, inclosed, and not so located as to interfere with passage between buildings.

48. It should be approximately 450 feet wide by 900 to 1,000 long, with a 220-yard running track on one side, and on the other an extension to form the finish of a 440-yard track.

49. If located along Vassar street, the grand stand should form a wall between the field and the street.

50. There should be provision for baseball, handball, football, broad and high jumping, shot put, pole vaulting, etc., as shown in the blue print and text.

51. It is recommended that tennis courts be laid out in the quadrangles and other available open spaces.

*See plans and text of report for details.

FINANCIAL

52. There should be a uniform tax on male students for the maintenance of the Walker Memorial, but not for other purposes covered by this report.

53. The business of the Walker Memorial should be conducted on a cash basis.

54. Cilley Fund. It is suggested that some person or committee be designated now to have charge of purchases of books, etc., from the income of this fund.

A. FARWELL BEMIS, '93,
ALFRED E. BURTON,
ARTHUR A. NOYES, '86,
J. ARNOLD ROCKWELL, '96,
H. W. TYLER, '84, Chairman.

Interest in Rowing

Although rowing interests at Technology have received scant encouragement since members of the Northwestern Association made a donation sufficient to purchase a second-hand shell some three or four years ago, the men have persistently kept up their rowing practice and have acquitted themselves with credit wherever they have been placed in competition with oarsmen from other colleges or clubs. How the rowing squad finances its affairs is a mystery and it probably could not be accomplished were it not for friendly coöperation and assistance of the rowing interests connected with the Boston Athletic Association.

W. L. Stevens of the Boston Athletic Association was secured as coach and Commodore Gere, '13, increased the interest in rowing by arranging a series of interclass races. These were run off May 16 on the mile course between Cottage Farm Bridge and Harvard Bridge. The seniors were not represented in the race. The freshmen won from the juniors by about a length, the sophomores being about five lengths behind the juniors.

Rowing has been growing in popularity during the last two or three years and when the Institute is located on the banks of the Charles there would seem to be many reasons why rowing should take its place as a major sport at the Institute. It is true that it is a profitless one and must be taken care of by sub-

scriptions or in some other way, but the grit that the men have shown not only in their races but in continuing such an effective organization, points to the conclusion that the sport must be recognized and supported.

Prof. Barton Honored

Prof. George H. Barton, '80, director of the Teachers' School of Science, was the guest of honor at the annual reunion and dinner of more than two hundred prominent educators of Boston and vicinity at the Hotel Brunswick last month. Those assembled were former pupils of Professor Barton who were celebrating his completion of a quarter century's relationship with the school. In the absence of President Lowell, Dr. W. T. Sedgwick, president of the association, presided.

A letter from President Lowell, who is touring the West, read: "Since the death of Prof. Alpheus Hyatt, the care of the school and its welfare have depended wholly on Professor Barton. It is he who has directed the spirit of the enterprise; it is he whose devotion has made it what it is. Through his work he has given to a generation of teachers a familiarity with the fundamental principles of science and through them he has influenced the teaching of countless children in Boston and vicinity."

A Good Wrestling Record

The Athletic Advisory Council recognized wrestling as a 'varsity sport early in the year. The wrestling team this year has done itself great credit, having made a clean sweep of every opponent that has appeared. Some of the teams met were: The Clapp Memorial A. A. of East Weymouth; Salem Y. M. C. A.; Marblehead team; Harvard; Beverly Y. M. C. A.; Boston Y. M. C. A.; and the Cunningham Gymnasium team of Milton.

The wrestling team next year will be a strong one as most of the old men will remain. There will be some interesting meets with the larger colleges.

TECH'S UNDERGRADUATE FINANCE COMMITTEE

How the Institute's Student Activities Have Been Put on a Real Business Basis

The following article which appeared in a recent issue of the *Boston Transcript* describes the working out of the student's finance commission:

Twenty Technology students seated at the dining table, the Students' Finance Committee, together with two advisory alumni, closed the other evening the accounts of the activities for the year. This, the first full report of all the activities, stands out strongly even at the Institute where so much, in fact practically all government is by the students. Here there are two bodies that are unique, the Institute committee, which is the real governing board and policing force of the students, and the finance committee. The latter controls or advises the general expenditures and conduct of the activities and unifies their systems. Incidentally it furnishes to from five to ten per cent. of the upper class a lesson in business management which the students gain without having found it in the courses or the options.

Altogether the student activities at Technology are handling the present year nearly thirty thousand dollars, twelve thousand for the Tech Show, a thousand or more for proms, Class Day and *Technique*, and a larger amount for *The Tech* and athletics. When one realizes that every one of the activities, athletics excepted, reports at the end of the fiscal year that it has cash in hand, and a provision during the few weeks more of school of probable income greater than probable outgo, the excellent work of the committee may be realized. And the work is the more interesting in that some of the activities were heirs to debts of their predecessors of last year.

The students at the Institute have many associations and other organizations which include the four classes, the

engineering societies, the Show, *Technique*, musical clubs, orchestra, Technology Christian Association, Union, Wireless Club, Institute committee, committees for Class Day, the Prom and the Portfolio and the athletics. A number of these, like the professional societies, may be termed static, for their receipts are small and expenses being largely regular meetings, may easily be estimated in advance.

But on the other hand the *Technique*, *The Tech* and the Tech Show are real business ventures in which there must be more or less of business risk. But so far as the finance committee is concerned there is the same interest and care whether the receipts are fifty dollars a year or five thousand, there is the same interest and the same pride in good management.

Just as the Institute committee is made up of the presidents or managers of the activities, and just as, while without legal standing, it has a moral force that makes its advice of the effect of commands, so the finance committee is made up of their treasurers and looks after the financial end of the student enterprise.

The finance committee takes up especially the fact that schoolboy enterprises even when the boys have grown to the size of those in the Institute, lack uniformity and business method and in general may be classed as hazardous from the financial point of view. It is especially true at the Institute, where so many of the students are dependent upon slender margins in the way of financial resources, the burdens of an unfortunate venture must be borne by those who have little to waste.

This is the possibility that the finance committee has removed, and the printer or tradesman no longer sees with some

trepidation that a group of students is seeking to do business with him. The credit of every activity that needs credit is at par, and for the year those whose year is ended have paid their bills. It is an excellent showing.

This whole movement has been a voluntary one and during the past two years one activity after another has asked for representation on the finance committee, the last to do so being the daily newspaper *The Tech*. The committee has arranged a uniform system of accounting in uniform books, which affords the means of presenting identical items. There are monthly meetings at which reports are made and precise statutes set forth by the treasurers and copies of the reports are filed with the secretary. The two graduate members who are present at these meetings are merely in an advisory capacity, for there are student officers who conduct the meetings. The business experience of these older men is at the service of the students and it is freely drawn upon if needed. It is in these meetings that the financial policy is considered. Every activity has its part in reviewing or considering the courses of the others, and every large undertaking is quietly considered by the treasurers of the nineteen other activities. If there is actual risk, the activity enumerates its resources or its guarantees, and if in the opinion of the group the risk is too great or for other reasons the venture inadvisable, the committee gives its advice in the form of a vote, and what that vote indicates the activity accepts. There was a proposition to take the Tech Show to New York. There were some good reasons why this might be done, but in the discussion it seemed wise not to do this and without a murmur it was given up. Such experiences as this are discipline for the students and not without their value for future needs.

The finance committee has finished its work for the school year, with every activity now itself under its supervision; it has regulated the plans so that although a number were handicapped with unpaid bills at the beginning of the year, all are

clear today, and it has suggested to those having balances the disposition of the funds so that the greatest advantages to all will result.

Tech Men in Birmingham Dine

The dinner of the Technology men in the Birmingham district was held at the University Club, Birmingham, Ala., on the evening of May 24. Out of twenty-seven men in that district, twenty-three were present. It proved that a number of men were strangers to each other and a two-minute talk was made by each of the men present in which they gave particulars of their work at Technology and a brief history of their career since leaving the Institute. There were no distinctive features of the meeting, it was purely a social get-together.

When it was found that the dining room was on the second floor and the piano on the first, the men showed their spirit by carrying the piano up an awkward staircase to the banquet room.

The new officers elected were: president E. C. Wells, '92; vice-president, H. G. Woodward, '88; secretary A. F. Mohan, '08.

It was decided to have similar meetings every two weeks.

New Officers in San Francisco

At the annual dinner of the Technology Association of Northern California which occurred May 24, Eugene F. Kriegsman, '05, was elected president for the coming year and Frederick M. Eaton, '05, and H. S. Griswold, '10, were made members of the executive committee.

A number of important changes were made in the constitution and it was voted to hold weekly luncheons at Jules Café in San Francisco every Tuesday.

The class of '02 was the banner class on the Alumni Fund list, during May, with 15 subscribers. From 44th on the class list it has jumped to 33rd place. The class of '10 came next in point of activity.

Twenty-sixth Council Meeting

The May meeting of the Alumni Council was held at the Engineers Club, Boston, May 19.

The Walker Biography Committee reported in favor of publishing in one volume a biography of General Walker, to sell for not more than two dollars, provided the Walker Memorial Committee could and would stand behind it financially. The report recommended the appointment of a biographer who is to receive an honorarium for his work. The Council accepted the report and, subject to the provisions contained therein, authorized the appointment of a biographer.

The committee consists of James P. Munroe, '82, Prof. D. R. Dewey and Prof. W. S. Ripley, '90.

George Glidden, '93, chairman of the committee on arrangements for the Potlatch, made a brief report of the arrangements and the program.

Jasper Whiting, '89, made a report in behalf of the committee on a course in business engineering which was received with enthusiasm and was heartily seconded by a dozen or more speakers. It was unanimously voted that the report be accepted, the recommendations adopted and that it be referred to the Executive Committee of the Corporation of the Institute with the request that they give it their earnest consideration. The report of this committee will be published in full in the July number of the REVIEW.

Student Activities Described

The Alumni Council recently held an informal smoker at the Engineers Club and invited representatives of the various undergraduate activities to tell of the progress that has been made. The program was in the hands of the president of the Institute Committee who introduced, in turn, men representing various student interests. This was one of the most interesting meetings that the Council has ever had. It was certainly a revelation to learn of the organized development of the Institute Committee itself, and of the excellent way in which students are conducting their affairs.

Practically all the activities have become departments of the Institute Committee in effect, their independence is practically the same as it always has been, but the student senate has been given certain powers with reference to those features of the activities that affect the whole student body. One of the most interesting departments is the finance committee which consists of the treasurers of all the organizations and which has placed student credit above par. An account of the annual meeting of the committee is given elsewhere in this issue.

Cincinnati Club Dines

The annual meeting and get-together of the Cincinnati M. I. T. Club was held April 5.

The new officers elected were president, Stanley A. Hooker, '97; vice-president, Herman W. Lackman, '05; secretary, S. R. Miller, treasurer, Robert Andrew, '01.

The above with R. W. Proctor, '94, and Theodore Green, '05, constitute the executive committee.

Gift for Naval Research

Henry A. Morss, '93, has given the Institute \$1,000 for continuing experiments with the *Fulton*, which with the *Froude*, constitutes the Tech navy. The *Fulton* was built last year with money given by Clinton H. Crane and Arthur C. James of New York, which was intended to solve the problems that are important in the towboat. Traditions and notions which have prevailed in the trade have been upset in a single year, and valuable discoveries have been made affecting construction. The place and value of bilge keels will be studied with the \$1,000 given by Mr. Morss.

The Rumford Committee of the American Academy of Sciences voted at its last meeting an appropriation of \$300 to Frederick G. Keyes of the Institute to be used for computing thermo-dynamic tables for ammonia.

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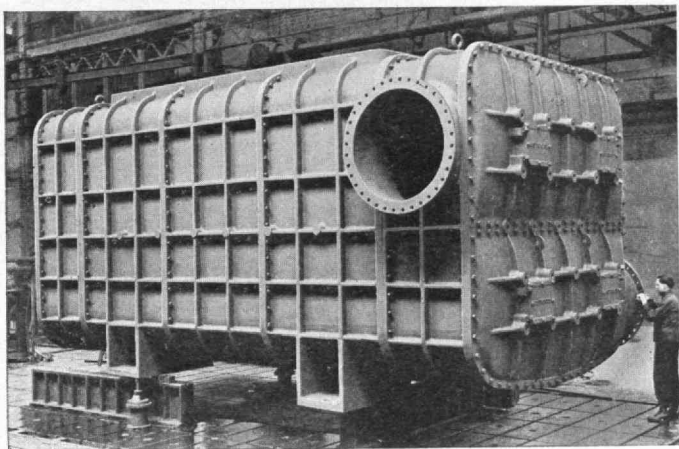
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